

DATA VERIFICATION OF THE OU-4B AND OU-5 SOIL INVESTIGATION
METEORIC WATER MOBILITY PROCEDURE (MWMP) SAMPLES
COLLECTED AT THE ANACONDA COPPER MINE SITE IN YERINGTON, NEVADA
ON JANUARY 24 AND 27, 2020

Laboratory: ACZ Laboratories, Inc.

Samples:

Field Sample Identification	Date Sample Collected	SDG	Parameters Examined
WRSB227-FD_0.5-3 (Field Duplicate of WRSB227_0.5-3)	1/24/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB227_6-15	1/24/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB233_0.5-3	1/24/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB233_6-15	1/24/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB237_0.5-3	1/24/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB237_6-15	1/24/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB238_0.5-3	1/27/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB238_6-15	1/27/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB238-FD_6-15 (Field Duplicate of WRSB238_6-15)	1/27/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB239_0.5-3	1/27/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra
WRSB239_6-15	1/27/2020	L57217	M ¹ , M ² , Hg, CN, Cl, F, SO ₄ , N, TKN, ALK, TDS, ²²⁶ Ra, ²²⁸ Ra

Parameters & Methods:

- M¹ - ICP Metals (specifically, aluminum, barium, boron, calcium, iron, lithium, magnesium, phosphorus, potassium, sodium, strontium, tin, and titanium) by SW-846 Method 6010D.
- M² - ICP/MS Metals (specifically, antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, molybdenum, nickel, selenium, silver, thallium, thorium, uranium, vanadium, and zinc) by SW-846 Method 6020B.
- Hg - Mercury by SW-846 Method 7470.

- CN - Cyanide, Weak Acid Dissociable (WAD) by Standard Method 4500-CN I.
 Cl - Chloride by Standard Method 4500-Cl E.
 F - Fluoride by Standard Method 4500-F C.
 SO₄ - Sulfate by ASTM Method D516-07.
 N - Nitrate Nitrogen, Nitrite Nitrogen, and Nitrate/Nitrite Nitrogen by US EPA Method 353.2.
 TKN - Total Kjeldahl Nitrogen by US EPA Method 351.2.
 ALK - Total Alkalinity, Bicarbonate Alkalinity, Carbonate Alkalinity, and Hydroxide Alkalinity as CaCO₃ by Standard Method 2320B.
 TDS - Total Dissolved Solids by Standard Method 2540C.
²²⁶Ra - Radium-226 by US EPA Method 903.1 (modified).
²²⁸Ra - Radium-228 by SW-846 Method 9320.

Items Reviewed
Holding Times
Chain-of-Custody and Case Narrative
Blank Results
MS/MSD Results
LCS Results
Laboratory and Field Duplicate Results
Chemical Yield

Qualifier Summary

Analyte(s)	SDG(s)	Sample(s)	Validation Qualifier(s)	Reason(s) for Qualification
nitrate nitrogen, nitrite nitrogen, and nitrate/nitrite nitrogen	L57217	WRSB227-FD_0.5-3, WRSB227_6-15, WRSB233_0.5-3, WRSB233_6-15, and WRSB237_0.5-3	J/UR	1 – Grossly exceeded holding time
nitrate nitrogen, nitrite nitrogen, and nitrate/nitrite nitrogen	L57217	WRSB237_6-15, WRSB238_0.5-3, WRSB238_6-15, and WRSB239_6-15	J/UJ	1 – Exceeded holding time
boron	L57217	WRSB227-FD_0.5-3 and WRSB233_0.5-3	UJ	2 – Method blank contamination
copper	L57217	WRSB237_6-15, WRSB238_0.5-3, WRSB238_6-15, WRSB238-FD_6-15 and WRSB239_6-15	UJ	2 – Method blank contamination

Analyte(s)	SDG(s)	Sample(s)	Validation Qualifier(s)	Reason(s) for Qualification
molybdenum, sulfate, and radium-226	L57217	WRSB237_6-15, WRSB238_0.5-3, WRSB238_6-15, WRSB238-FD_6-15, WRSB239_0.5-3, and WRSB239_6-15	J/UJ	D – Laboratory duplicate imprecision
uranium	L57217	WRSB238_6-15 and WRSB238-FD_6-15	J	8 – Field duplicate imprecision

Quantitation of Results: Based on standard project reporting requirements, all positive results reported at concentrations greater than the method detection limit but less than the reporting limit were qualified as estimated and have been flagged “J” on the data tables. (Valid Reason Code: T)

Based on standard project reporting requirements, all radium-226 and radium-228 results reported at concentrations less than the method detection limit were qualified as “not-detected” and have been flagged “U” on the data tables. (Valid Reason Code: 9)

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